Business Retention and Expansion Strategies Program

Dakota County

Strengthening Firms through Technology

Summary Report

February 1997

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INTRODUCTION

The Dakota County Economic Development Partnership initiated the Business Retention and Expansion Strategies (BR&E) program to learn about and help address the needs and concerns of technology-oriented firms in the county and explore ways to promote economic development through the use of technology. The purpose of the BR&E program is to "strengthen Dakota County Businesses through technology."

The Partnership's Technology Committee partnered with the University of Minnesota to organize the BR&E Program, which has the support of businesses, government, and educational leaders from the area. During the Spring and Summer of 1996 groups of volunteers visited 30 firms to find out about their concerns, needs and plans.

The Technology Committee reviewed the survey results and a research report prepared by the University and decided to promote the strategies and projects highlighted in this summary report. Additional strategies and projects to address the needs of technology-related businesses are included in the University's research report, which is available by request from the Partnership.

FIRM EMPLOYMENT INFORMATION

Thirty firms were visited as part of the BR&E Program. The 25 firms that responded to an employment question currently employ a total of 2,198 full-time workers, 176 part-time workers, and 39 contract or temporary workers.

Number of Part-Time & Temporary/Contract Workers

Part-time	Contract/ temp	Total non-full-time	% of total emp.
176	39	214	9.7

Firms Reporting Full-Time Employees

Employee Category	No. of firms	% of firms	No. of emps.	% of full-time emp.
< 10	4	16	17	0.8
10 - 49	9	36	251	11.4
50 - 99	7	28	477	21.7
100 +	5	20	1453	66.1
Total	25	100	2198	100.0

PRIMARY FINDINGS FROM THE SURVEY

Most firms anticipate a variety of changes in their operations in the near future. Seventy-three percent of firms plan to modernize or expand their buildings or equipment. Of those, more than two-thirds expect this type of change to take place within the next two years. Thirty percent of the firms are considering moving and 7 percent are considering closing. The firms that are considering moving employ 325 full-time workers.

Over the next three years, 63 percent of the firms reported they plan to make a change in their mix of goods and services and half plan to add or subtract product lines. Sixty percent of the firms plan to make a change in their production technology, and 57 percent expect to make changes in personnel. Only one firm had no plans to make changes in its business in the next three years.

Changes Planned for the Next Three Years

	No. of firms	% of firms
Change in mix of goods/services	19	63%
Change in production technology	18	60%
Changes in personnel	17	57%
Addition or subtraction of product lines	15	50%
Considering moving	9	30%
Considering closing	2	7%
No change expected	1	3%
Other type of change	1	3%

All of the firms surveyed anticipate they will need to develop or acquire new technologies within three years. When asked about the types of new technology they will require, 77 percent of the firms reported they will require new processes (technologies for use in the production of goods or services), and 73 percent will require new products (technologies in the product that the company will sell to others).

Technology Requirements over Next 3 Years

	No. of firms	Share of firms
Require new technology	30	100%
Type of technology:		
--new processes	23	77%
--new products	22	73%

Most of the firms surveyed reported they would use several information sources to identify the new technologies they will require. The sources cited by the largest number of firms include trade shows (77 percent of firms), trade magazines (73 percent of firms), and their own firm (73 percent of firms).

Sources of New Technologies

	No. of firms	Share of firms
Trade shows	23	77%
Trade magazines	22	75%
Your company	22	73%
Trade/professional assoc'ns	20	67%
Sales representatives	17	57%
Technical seminars from suppliers	16	53%
Internet	13	43%
Other	13	43%
University or other higher education institution	12	40%
Popular press/general media	10	33%
Federal research/publications	10	33%

The greatest area of concern to Dakota County firms appears to be the workforce. Survey respondents saw a great need for training and retraining of current employees as well as a need for workers with technology-related skills. These workers are key to the firms' development and acquisition of new technology. For example, 87 percent of survey respondents anticipate that new technologies will require retraining of their workforce. Meanwhile, 60 percent of the firms reported that the unavailability of labor force expertise to develop and operate new technology is a barrier to their developing or acquiring new technologies. This was by far the greatest barrier identified by the Dakota County firms surveyed.

Access to financing, the next most frequently cited barrier, was reported by 40 percent of Dakota firms.

Barriers to Developing or Acquiring New Technologies

	No. of Firms	Share of Firms
Labor force expertise not available to develop or operate new technology	18	60%
Access to financing	12	40%
Other	9	30%
Government regulators/policy not supportive	7	23%
Internal: corporate mission/structure problems	7	23%
Access to information about new technologies that could aid business	5	17%
Community infrastructure is not available to use the new technology	4	13%
I have not experienced barriers	2	7%

STRATEGY 1. OPTIMIZE THE QUANTITY, QUALITY, AND AVAILABILITY OF WORKERS WITH TECHNOLOGY-RELATED SKILLS.

Survey Results for Strategy 1

The firms interviewed emphasized the need for a greater number of skilled workers and improved skills of existing workers. Both the supply of workers and their skills are key to the integration of technology into these firms' processes and products.

Of the 87 percent of the firms that anticipate the new technologies they will develop or acquire will require retraining of their workers, 57 percent expect to provide the training in-house and 37 percent will rely on private vendors. Almost a quarter of the firms plan to use technical colleges.

Sources of Technology Training for Workers

	No. of Firms	Share of Firms
In-house	17	57%
Private vendor	11	37%
Technical college	7	23%
Other	7	23%

The need for assistance in labor force preparation was clear. Fifty percent of the firms surveyed reported that the Partnership could provide assistance in 1) creating new business-school partnerships or customized training programs, and 2) enhancing the ability of local schools to serve the needs of their company. Related to these is a role identified for the Partnership in facilitating solutions to labor force shortages.

The insufficient number of workers with the technology skills required by these firms may represent the greatest challenge to the retention and expansion of these and similar businesses in the county. Since 40 percent of the firms surveyed saw a role for the Partnership in facilitating solutions to labor force shortages, and 50 percent thought the Partnership could help their operation by creating business-school partnerships or customized training programs, the Technical Committee and the Partnership have a clear mandate to embark on programs in this important area.

Project 1. Assess the supply and demand for technology skills and the availability of training from private and public providers. After completing the assessment, develop a plan for addressing identified skill gaps as quickly and effectively as possible.

As a first step to better understanding the need for both training programs and increased numbers of skilled workers, the Partnership's Technical Committee agreed to examine the current supply and projected

demand for particular technology skills in the county.

The Technical Committee members who agreed to work on this project established that the effort should be quick and ongoing. As part of their work on this initiative, the members will 1) look at which high-wage jobs are difficult to fill due to an insufficient number of qualified applicants, 2) monitor classified ads as part of an on-going survey of job categories and demand, 3) examine employer surveys completed by the state and other organizations, and 4) inventory jobs skills that are in demand.

Based on their analysis, the members plans to identify those jobs that provide the greatest income relative to the level of skill they require. In addition to other related activities, the group will work to incorporate the results of their work into technical degree programs.

The following people have agreed to implement this project: Kevin Anderson of Inver Hills Community College, Bernie Gross of Gross and Company, Steve Wallace of Inver Hills Community College, and Kay Trinkle of Dakota County Technical Preparation Consortium. For more information on the project, contact Scott Beckman of the Dakota County Economic Development Partnership at 423-8291 or one of the people listed above.

Project 2. Promote the value of school-business partnerships.

To further address the key workforce and training issues identified in the survey, the Partnership's Technical Committee has agreed to promote the value of school-business partnerships in Dakota County.

To implement this project, the Committee plans to 1) identify existing school-business partnerships, 2) identify three business willing to cooperate on a technology-focused apprenticeship, internship or mentoring program, 3) integrate greater educational awareness into existing career counseling programs, and 4) share the BR&E research report with existing business partnerships, chambers of commerce, and other related organizations.

The Technical Committee members who have agreed to implement this project include: Tom Trutna of the Small Business Development Center, Jim Fider of Dakota County Technical College, Suevonne Negaard of School District 196, Nancy White of Dakota County Employment and Training, Liz Templin of Minnesota Extension Service-Washington County, and Warren Siffrath of Minnesota Extension Service – Washington County.

For more information on this project, call Scott Beckman of the Dakota County Economic Development Partnership at 423-8291, or contact one of the people listed above.

STRATEGY 2. LINK DAKOTA COUNTY TECHNOLOGY FIRMS WITH EXISTING RESOURCES.

Survey Results for Strategy 2.

According to the survey results, Dakota County firms seek information on a variety of technology-related issues and greater access to technology. Forty-four percent of the firms responded they would like information on customized job training, and 41 percent wanted information on telecommunications and grants to develop new technologies. In addition, 37 percent requested information on the Internet and one-third wanted information on acquiring technologies from government. Forty-four percent of the firms also wanted information on benchmarking, a

process for improving the quality of products and processes.

Firms saw a role for the Partnership in helping them access information and technology. For example, 33 percent responded that the Partnership could help by working with the University of Minnesota, federal labs, and others to promote technology transfers into Dakota County businesses.

Another area of assistance relates to helping firms improve their competitiveness. One area identified by 47 percent of the firms is International Standards of Organization (ISO) 9000 support. An ISO 9000 certification would help increase the firms' competitiveness both nationally and internationally.

One-third of the firms also said the Partnership could aid their business by helping them locate strategic partners that could add value to their products or services. Approximately 20 percent of firms rated this as one of their top three priorities, a relatively high percentage for the question.

How Firms Believe the Partnership Can Help Their Business

	No. of firms	Share of firms
reate new business-school artnerships or customized training	15	50%
nhance ability of local schools to erve company's needs	15	50%
mprove telecommunications nfrastructure	14	47%
nternational Standards of rganizations (ISO) 9000 support	13	43%
acilitate solutions to labor force hortages	12	40%
Technology trade fair/publicize xistence and value of technology-riented firms	11	37%
ssist businesses in locating trategic partners	10	33%
ork with Univ. of Minnesota, ederal labs, etc. to promote echnology transfers	10	33%
nternational markets technical ssistance	10	33%
acilitate industry-based ooperation and dialogue	8	27%
ncorporate corporate economic ision and needs into the ommunity infrastructure planning	8	27%
lectronic access to business nformation	7	23%
ocal government regulatory lexibility	7	23%
acilitate local government attention o company's needs/future plans	6	20%

Given both the firms' external focus (one-third of firms would like assistance in locating strategic partners, and more than two-thirds turn to trade magazines, trade/ professional associations , and trade shows for information on new technologies) and their interest in receiving a variety of information and assistance, the Partnership's Technical Committee has an important opportunity to link area businesses with a wide-range of resources, including other firms in the county.

Since businesses across the state likely share this quest for information on technology, financing, and other issues, the state also has a role to play in linking Minnesota firms with resources they need to expand and thrive.

Project 3. Help firms link to technology-based process improvement and innovation information.

To address Dakota County firms' interest in information and access to technology, the Partnerships' Technical Committee decided to make linking firms with information on technology-based process improvements and innovations a priority.

As a first step, the Committee members working on this effort plans to identify technology groupings or clusters of Dakota County firms. In doing this, the group will refer to an existing metro-wide industry

cluster analysis, and involve other groups, such as Minnesota Technology, Inc. and the Quality Council. Once key clusters are identified, the Committee members will look at ways to bring cluster members together to discuss mutual technology-related needs and ways to address them.

In their work, the Committee members will also try to determine and address the problems firms have experienced accessing information and technology.

The Technical Committee members who have agreed to work on this project include: Paul Edwards of Minnesota Benchmarking, Tony Strauss of the University of Minnesota, Bart Bevins of the Department of Trade and Economic Development, and Nicole Bennett of the City of Lakeville.

For more information on this project, call Scott Beckman of the Dakota County Economic Development Partnership at 423-8291, or contact one of the people listed above.

Firms Visited

Company	**Location**
Boulware Technology	Burnsville
Braemar, Inc.	Burnsville
CMC Systems/PC Advantage	Burnsville
Craftline Manuf.	Lakeville
Data Sales Company, Inc	Burnsville
Despatch Industries, Inc	Lakeville
Dicomed	Burnsville
Duo Plastics	Farmington
Ergotron	Eagan
Graphic Design	Hastings
Intergraph Corp	Mendota Heights
Loral Defense Systems	Eagan
Mias Parts	Eagan
Mid-America Power Drives	Burnsville
Modern Computer Systems, Inc.	Burnsville
National Checking Company	West Saint Paul
Northwest Airlines	Eagan
Pictographics International Corp.	Burnsville
Poliac Research	Burnsville
Sexton Printing Company	West Saint Paul
Sovran, Inc.	Mendota Heights
Spectro Alloys	Rosemount
Technical Methods, Inc.	Lakeville
Time-Share Computer Systems	Burnsville
Trans-Alarm, Inc.	Burnsville
Waterous Company	South Saint Paul
Wipwire	Inver Grove Heights
Xata Corp.	Burnsville